

Steve,

Below are the answers to your questions you have in regards to CERCLA release reporting as it pertains to continuous release reporting. A lot of the answers to your questions came from the guidance document the EPA published in 1997. The link to the guidance document entitled, "Reporting Requirements for Continuous Releases of Hazardous Substances, A Guide for Facilities on Compliance", is provided below.

<http://www.epa.gov/superfund/resources/release/faciliti.htm>

Now, on to your questions:

1. Can a release instantaneously be considered a R&C release or must we call it an upset release then make the determination that it is a R&C release?

Answer: No, a release cannot be instantaneously be considered a R&C release especially if it's a new release. It generally requires a bit of time to establish that the release is continuous and stable in quantity and rate. Releases that are recently discovered must be evaluated to determine whether or not the release is the result of an accident. Regardless of whether or not the release is continuous or not, the new release should be reported to the NRC immediately.

2. Do continuous releases of NH3 need to be reported if it is less than 100 pounds?

Answer: Yes and no. If the ammonia release is the result of an accident or is the only ammonia release from your facility and is less than 100 lbs, then no, you do not need to report it. However, if the release meets the definition of continuous and contributes to the overall quantity of ammonia being released from your facility such that the total amount of ammonia being released from the facility is greater than 100 lbs, then Yes, you need to report.

3. Do continuous releases need to be reported if it is equal to or greater than 100 pounds?

Answer: Yes. If the chemical being released has a reportable quantity of 100 pounds then you need to report it if it is equal to and greater than 100 lbs. Reporting is dependent on the RQ. If the chemical being released meets or exceeds its RQ within 24 hours, then it needs to be reported.

4. We submitted a comprehensive R&C list under CERCLA in the 1990's do we need to continue to quantify and report new sources of R&C emissions if they are not SSI triggers? We currently operate well below our original maximum combined upper bound of all R&C sources.

Answer: Yes, you need to continue to report new sources of R&C emissions. This, in turn, will impact your SSI triggers. SSI triggers are calculated from the upper bound of the normal range of ALL sources. So, if you have new sources, then you'll have new SSI triggers. See page 27 of the second part of the guidance document on continuous release reporting provided above.

5. What time frame must we report a R&C release?

Answer: An R&C release must reported as soon as the facility has

sufficient basis to establish that the release is continuous and qualifies for reduced reporting under the CERCLA program. However, this interpretation sounds like you have an indefinite amount of time to "establish" that the release is continuous. This is not the case because as soon as you discover the release, you are technically required to notify the NRC immediately and assume that it is an accidental release. If the release continues to emit greater than the RQ every day, then you need to report it every day. If it's looking like this release is going to meet the requirements for continuous release reporting, then you report to the NRC that this release is continuous.

6. What exactly need to be said to the NRC for reporting a R&C verses an upset report?

Answer: What you need to report to the NRC can be found in the guidance doc and in the regulations. The reporting requirements are very similar to the emergency release notification requirements, except instead of telling them that this is an emergency, you let the NRC know that this is a continuous release.

7. Can we do a "catch all R&C " quantification for multiple emission sources such as gaskets. These gaskets may have not failed however they may be operating at a condition that could be considered less than manufacturers specs.

Answer: Continuous release reporting includes such things as fugitive emissions. Emissions from gaskets would likely fall under the fugitive emissions source. Based on that, it would be reasonable for you to have a source called "Gaskets".

5. SUMMARY OF RELEASES & FINDINGS

The START-2 reviewed all of the releases reported in Agrium's CR-ERNS report with the exception of those releases whose upper bound was less than the RQ. This section presents information about each release over the RQ. Information included in this section includes:

- Source name;
- Type of source (continuous or intermittent);
- Chemical(s) and quantity released;
- Description of the release; and,
- Additional information regarding the continuous nature of the release.

5.1 PLANT 1 RELEASES

Agrium reports a total of four continuous releases from Plant 1. All four releases involve the release of anhydrous ammonia to air; however, only one release exceeds the RQ for ammonia and is discussed in this section.

5.1.1 Plant 1 Wet Reformed Gas Vent, F-130

The F-130 Wet Reformed Gas Vent is an intermittent source that releases anhydrous ammonia to the air during startup of the plant. Agrium estimates the upper bound of the amount released per day during a plant startup as 6,200 pounds per day (ppd). A lower bound on the release rate is not reported for this source.

During startup of Ammonia Plant 1, steam and air are introduced into the primary and secondary reformers to heat them up to the process temperature of 1,350 °F. While the steam and air are heating up the reformer, some of the gases are being reformed into CO, CO₂, nitrogen and hydrogen. Some of the nitrogen and hydrogen formed during startup are combining spontaneously to form ammonia. However, because the reformer is not at its normal operating temperature, the amount of reformed gas generated during this time is not enough to send on to the next step in the process. Therefore, the reformed gas, steam, air, and the small amount of ammonia generated during startup is discharged to the atmosphere through the F-130 Wet Reformed Gas Vent. The gases are discharged to the atmosphere to prevent the buildup of pressure in the reformer. During normal plant operation, pressure in the reformer is regulated by sending the reformed gas on to shift conversion process.

Discuss supporting info from Agrium here.

Does it meet the definition of continuous?

5.2 PLANT 2 RELEASES

Agrium reports a total of ten continuous releases from Plant 2. All ten releases involve the release of anhydrous ammonia to air. Of the ten continuous releases reported, two of the releases do not exceed the RQ for anhydrous ammonia. Eight of the continuous releases from Plant 2 do exceed the RQ and are discussed in this section.

5.2.1 Plant 2 Prill Tower, P-406

The P-406 Prill Tower is a continuous source of anhydrous ammonia emissions. The ammonia emissions are the result of producing urea prills. The lower bound of the total amount released on a daily basis is reported by Agrium as 700 ppd. Agrium reports the upper bound of the daily release rate as 1,200 ppd.

In Plant 2, urea prills are formed by melting urea crystals and pouring the molten urea into spinning, perforated buckets located at the top of the P-406 Prill Tower. The molten urea entering the spinning bucket is thrown out of the small holes forming droplets. The droplets solidify as they fall to the bottom of the tower. Although most of the ammonia has been removed from the urea by this step in the process, some residual ammonia does remain. As the urea prills fall to the floor of the prill tower, some of the residual ammonia vaporizes from the product. The prill tower is open to the atmosphere and does not have the means to capture ammonia vapors.

In October 1993, a source test was performed on the P-406 Prill Tower. AmTest Alaska collected samples from the eight exhaust ducts at the top of the prill tower and determined that approximately 1,200 pounds per day of ammonia is released from this source (AmTest 1993). A copy of the source test is provided with the supporting documentation in Appendix E.

5.2.2 Plant 2 Atmospheric Absorber, D-405

The D-405 Atmospheric Absorber is a periodic source of anhydrous ammonia emissions; however, when it does release ammonia, the emissions are continuous. The release occurs when the absorber is shut down for maintenance. Agrium reports the upper bound of the daily release rate as 1,000 ppd. No lower bound is reported for this source.

The D-405 Atmospheric Absorber strips ammonia released from tank vents associated with the separation process. Process air from these vents are passed through the atmospheric absorber to remove

residual ammonia. Because very little ammonia remains in the process air from these particular vents, a majority of the ammonia normally is removed by the absorber. However, when the absorber is down for repair, it is not removing any ammonia. Instead, the ammonia from these tank vents is released to the atmosphere during maintenance.

Discuss supporting info.

Discuss how this meets definitions.

